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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/458,897	12/10/1999	TOM GIAMMARRESI	533/047	9422

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MOSER, PATTERSON & SHERIDAN L.L.P.
595 SHREWSBURY AVE
FIRST FLOOR
SHREWSBURY, NJ 07702

EXAMINER

MURPHY, TIMOTHY M

ART UNIT	PAPER NUMBER
2611	3

DATE MAILED: 12/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/458,897	GIAMMARRESI, TOM
	Examiner Timothy Murphy	Art Unit 2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-21 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-21 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 - a) The translation of the foreign language provisional application has been received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

Page 14, lines 9-10 state "in step 416, until the session ends, at step 418"

which should state --in step 414, until the session ends, at step 416--

Appropriate correction is required.

Claim Objections

2. Claims 6, 8 and 21 are objected to because of the following informalities:

In Claim 6, line 3, "said plurality of access controller"

should be changed to --at least one access controller--

In Claim 8, line 2, "said plurality of storage devices"

should be changed to --at least one storage device--.

For the purposes of examination, "said plurality of storage devices" will be interpreted as "at least one storage device" as recited in dependent claim 1, throughout.

Claim 21, line 1 states "The apparatus of claim 120, wherein:"

should state --The apparatus of claim 20, wherein: --

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zetts (6,378,129), in view of Ueda (5,815,194).

In regard to Claim 1, Zetts discloses a method of distributing and sharing processing loads and increasing fault tolerance between provider equipment and subscriber equipment of an interactive information distribution system (Summary of the Invention, col. 3). The method comprises executing a video session from at least one managing module (master control automation server/controller 100 executes playlist 110; col. 4, lines 43-45) on a primary head-end controller (100 in conjunction with primary server 130; 100 controls 130, col. 4, lines 47-50), dedicating at least one secondary head-end controller (100 in conjunction with secondary server 150; 100 controls 150, col. 4, lines 47-50) having said at least one managing module as a reserve resource for executing said video session

(primary server 130 is initially live to network; col. 4, lines 33-35), storing session-state data from said executed video session on at least one storage device (playlist 110 stored at 100), and streaming said video information during a normal mode of operation (col. 4, lines 33-38), as claimed. Although Zetts discloses of outputting from the system a series of video content presentations to a user group (Summary of the Invention, col. 3) thus demonstrating the need for client side equipment, Zetts fails to specifically request video information from said subscriber equipment and streaming video information to requesting subscriber equipment, as claimed.

Ueda, though, teaches a video on demand system in which the subscriber equipment (client terminal 121) requests video information (col. 5, lines 20-30 and Fig. 4). In return, the VOD server streams the video information to requesting subscriber equipment (col. 5, lines 31-57). The system provides the added ability to request and retrieve video information from an archival server system. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Zetts with requesting video information from said subscriber equipment and streaming video information to requesting subscriber equipment, as taught by Ueda, for the advantage of providing the ability to request and retrieve video information from an archival server system.

In regard to Claim 2, the combined systems of Zetts and Ueda disclose

the claimed subject matter. In particular, Zetts discloses a function (the controller-server transaction; col. 5, line 63) of said at least one managing module (100 controls both 130 and 150 to remain in sync with each other while the primary 130 is operating; col. 5, lines 63 – col. 6, line 4) is distributed (operates on both 130 and 150 simultaneously) further comprising executing said video session from said at least one secondary head-end controller (if primary server 130 were to be unable to provide video to broadcast, then secondary server 150 changes state from stand-by to live on the network 198; col. 4, lines 33-42), as claimed.

In regard to Claim 3, the combined systems of Zetts and Ueda disclose the claimed subject matter. In particular, Zetts discloses a function ("hot-standby" function of 100; col. 4, line 36) of said managing module is not distributed amongst said primary and secondary head-end controller and said method comprises executing said video session from said at least one managing module on said primary head-end (if primary 130 is in failure mode, then 100 changes the state of the output to network by secondary 150 changing from state of standby to live; col. 4, lines 33-45), as claimed.

In regard to Claim 4, the combined systems of Zetts and Ueda disclose the claimed subject matter. Zetts discloses processing said session-state data (playlist 110) through said at least one distributed managing module (the function

of executing two playlist simultaneously where 100 executes 110/200,210; col. 5, lines 8-12) concurrently on said primary head-end controller (100 in conjunction with 130) and said at least one secondary head-end controller (100 in conjunction with 150) (both the primary and secondary servers are concurrently controlled through master automation computer 100, which executes playlist 110; col. 4, lines 43-56 and col. 5, lines 8-13), wherein said at least one distributed managing module (playlist 110 executed from 100) on said primary head-end controller (100 in conjunction with 130 executes first playlist 200) and said at least one secondary head-end controller is an active mode (100 in conjunction with 150 execute second playlist 210 to remain in sync with 130; col. 5 ,line 63 – col. 6, line 4), and processing said session-state data from said at least one non-distributed managing module on said primary head-end controller (in “hot-standby” mode, 100 in conjunction with 130 executes first playlist 200 for 130 to broadcast to network), wherein said at least one non-distributed managing module on said primary head-end controller is in an active mode (“hot-standby” function of 100 in conjunction with 130 is initially live to network; col. 4, lines 33-36), and wherein said at least one non-distributed managing module on said secondary head-end controller is in a standby mode (initially 150 is in standby to be switched to live on network; col. 4, lines 35-42), as claimed.

In regard to Claim 5, the combined systems of Zetts and Ueda disclose the claimed subject matter. Zetts discloses processing said session-state data

produced by said primary head-end controller via said at least one secondary head-end controller in a failure mode of operation (if primary 130 fails then secondary 150 will play video according to the playlist of secondary server which is identical to the playlist of primary server; col. 5, lines 8-13), wherein said primary head-end controller becomes inoperative (secondary 150 switches to live from standby in failure mode; col. 4, lines 33-45), as claimed.

In regard to Claim 6, the combined systems of Zetts and Ueda disclose the claimed subject matter. Zetts discloses streaming video information from a stream server (video archive unit 140) to an access controller (100 in conjunction with router 165) in said normal mode of operation (from 140 to 130 to router 165 in normal mode as seen in Fig. 1; col. 4, line 33-38), wherein said primary head-end controller (100 in conjunction with 130) manages said video session between said stream server and said plurality of access controller (100 manages router 165 to allow for a multiplicity/plurality of controllers), and streaming video information from said stream server (140) to said access controller in said failure mode of operation (from 140 to 150 to 165; col. 4, lines 39-45), wherein said secondary head-end controller (100 in conjunction with 150) manages said video session between said stream server (140) and said access controller (from 140 to 150 to router 165 in failure mode; col. 4, lines 39-45), as claimed.

In regard to Claim 7, the combined systems of Zetts and Ueda disclose the claimed subject matter. Zetts discloses storing said session-state data produced by said primary head-end controller on said at least one storage device (playlist 110/first playlist 200 (col. 5, lines 8-21) is stored at 100) coupled to said primary head-end controller (100 in conjunction with 130), and storing said session-state data produced by said at least one secondary head-end controller on said at least one storage device coupled to said primary head-end controller (playlist 110/second playlist 210 (col. 5, lines 8-21) is stored at 100 in inherent computer memory/storage device), as claimed.

In regard to Claim 8, the combined systems of Zetts and Ueda disclose the claimed subject matter. Zetts discloses replicating said stored session-state data (playlist 110 has two separate copies, 200 for primary 130 and 210 for secondary 150; col. 5, lines 8-21) from one of *at least one storage device* coupled to said primary head-end controller (an inherent storage/memory in (computer) 100, such as temporary memory), to each of the remaining storage devices of said *at least one storage device* coupled to said at least one secondary head-end controller (a separate inherent storage/memory in (computer) 100, such as permanent memory), and wherein said at least one secondary head-end controller retrieves said session-state data executed by said managing modules of said primary head-end controller (100 of combination 100 with 130) for continuing said video session with said subscriber equipment (by

utilizing the two identical playlist found on 100; Fig. 2 and col. 5, lines 8-28), as claimed.

In regard to Claim 9, the combined systems of Zetts and Ueda disclose the claimed subject matter. Zetts discloses storing said session-state data produced by said primary head-end controller on a memory device coupled to said primary head-end controller (playlists stored on 100), and storing said session-state data produced by said at least one secondary head-end controller on said memory device coupled to said primary head-end controller (second playlist 210 for 150 is stored at 100 in inherent computer memory/storage device), as claimed.

In regard to Claim 10, the combined systems of Zetts and Ueda disclose the claimed subject matter. Zetts discloses replicating said stored session-state data from said memory device coupled to said primary head-end controller (playlist 110 has two copies, 200 for primary 130 and 210 for secondary 150 stored on 100; Fig. 1 and col. 5, lines 8-21), to at least one memory device coupled to said at least one secondary head-end controller (stored in inherent storage/memory of 100, coupled to 150 as seen in Fig. 1), and wherein said at least one secondary head-end controller retrieves said session-state data executed by said managing modules of said primary head-end controller (when system changes to state of 150 from standby to live, 100 executes second

playlist 210 on 150; col. 5, lines 8-13) for continuing said video session (continues video since 130 and 150 remain in sync; col. 5, line 63 – col. 6, line 4) with said subscriber equipment (Ueda: subscriber equipment (client terminal 121), as claimed.

In regard to Claim 11, Zetts discloses an apparatus for distributing information through a network (Abstract). The apparatus further comprises a stream server (video archive unit 140), a plurality of head-end controllers (master automation computer 100 in conjunction with primary video server 130 and secondary video server 150; both 130 and 150 are controlled 100; col. 4, lines 47-50), coupled to said stream server (140 coupled as seen in Fig. 1), for managing a video session, and a plurality of access controllers (100 in conjunction with router 165, 165 allows several inputs and controlling the outputs via control from 100; col. 4, lines 48-56), coupled to said plurality of head-end controllers (130 and 150 are coupled to 165 as seen in Fig. 1), during said video session to responsively provide video information to a network, as claimed. Although Zetts system interfaces with a network (198), he does not specifically disclose of interfacing with subscriber equipment and providing video information upon a request for video information from the network, as claimed.

Ueda, though, teaches a video on demand system in which the subscriber equipment (client terminal 121) requests video information (col. 5, lines 20-30 and Fig. 4). In return, the VOD server provides the video information to

requesting subscriber equipment on the network (col. 5, lines 31-57). The system provides the added ability to request and retrieve video information from an archival server system. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Zetts with interfacing with subscriber equipment, as taught by Ueda, for the advantage of providing the ability to request and retrieve video information from an archival server system.

In regard to Claim 12, the combined systems of Zetts and Ueda disclose the claimed subject matter. Zetts discloses an apparatus wherein each head-end controller (100 in conjunction with 130 and 150) of said plurality of head-end controllers comprises a plurality of managing modules for executing said video session (on 100, "hot-standby," playlist 110/200,210, and 130 and 150 remaining in sync), a processor for processing session-state data produced by said plurality of managing modules, and memory devices, coupled to said processor (master automation computer 100 inherently has a processor for processing and inherent memory devices for storing, coupled together), for temporarily storing said session-state data (entries in playlists include the temporary status of the video session; col. 5, lines 23-29), as claimed.

In regard to Claim 13, the combined systems of Zetts and Ueda disclose the claimed subject matter. Zetts discloses an apparatus wherein said plurality of

head-end controllers comprises a primary head-end controller (100 in conjunction with 130) and at least one secondary head-end controller (100 in conjunction with 150), as claimed.

In regard to Claim 14, the combined systems of Zetts and Ueda disclose the claimed subject matter. Zetts discloses an apparatus wherein in a normal mode of operation, said primary head-end controller interacts with said stream server (140) to generate said video information (130 interacts with 140 via connection 190, col. 4, lines 57-67; to generate video information, col. 5, lines 25-29), and said at least one secondary head-end controller remains in standby mode (150 in standby; col. 4, lines 39-45), and in a failure mode of operation, said primary head-end controller is inoperative, and said at least one secondary head-end controller remains in standby mode (150 in standby; col. 4, lines 33-42), as claimed.

In regard to Claim 15, the combined systems of Zetts and Ueda disclose the claimed subject matter. Zetts discloses an apparatus wherein said plurality of managing modules (on 100, "hot-standby," playlist 110/200,210, and 130 and 150 remaining in sync) comprise at least one distributed managing module (playlists 110/200,210 operate to keep 130 and 150 simultaneously in sync), for processing session-state data through both primary head-end controller and said

at least one secondary head-end controller concurrently (playlist 110 has two copies stored on 100, 200 for primary 130 and 210 for secondary 150; Fig. 1 and col. 5, lines 8-21), and at least one non-distributed managing module ("hot-standby," master automation computer 100 can execute playlists 110/200,210 in failure mode; col. 4, lines 33-45), for processing session-state data by said primary head-end controller (playlist 110/200), as claimed.

In regard to Claim 16, the combined systems of Zetts and Ueda disclose the claimed subject matter. Zetts discloses an apparatus wherein in a failure mode of operation (failure mode; col. 4, lines 33-45), a portion of said plurality of access controllers (100 in conjunction with router 165) coupled to said inoperable primary head-end controller (100 in conjunction with 130 coupled to 165, as seen in Fig.1) interface with said secondary head-end controller (100 in conjunction with 150), whereby all of said plurality of access controllers are interfacing with said at least one secondary head-end controller (100 now controls router 165 to switch to 150; col. 4, lines 47-56), to responsively interact with said network (198), as claimed.

In regard to Claim 17, the combined systems of Zetts and Ueda disclose the claimed subject matter. Zetts discloses an apparatus wherein in a failure mode of operation (failure mode; col. 4, lines 33-45), said at least one distributed managing module (on 100, playlist 110/200,210 execution) and said at least one

non-distributed managing module (change states on 150 from "hot-standby" to live on network 198) executes said video session through said at least one secondary head-end controller (if primary server 130 were to be unable to provide video to broadcast, then secondary server 150 changes state from stand-by to live on the network 198 both controlled by 100; col. 4, lines 33-42), as claimed.

5. Claims 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zetts, in view of Ueda, in further view of Maya et al (5,845, 328).

In regard to Claim 18, Zetts discloses an apparatus further comprising a centrally networked storage device (video archive unit 140) coupled to said primary head-end controller (100 in conjunction with 130) and said at least one secondary head-end controller (100 in conjunction with 150) (coupled as seen in Fig. 1), for centrally storing said session-state data produced by said plurality of managing modules (100 stores playlists 110/200,210; col. 5, lines 8-13), and in said failure mode of operation (failure mode; col. 4, lines 33-45), said at least one secondary head-end controller (100 in conjunction with 150) retrieves said session-state data stored by said primary head-end controller (100 in conjunction with 130 retrieves playlist from 100), for continued interaction with said stream server to provide said video information to said network (130 and 150 remain in sync; col. 5, lines 63 – col. 6, line 4), as claimed. However, Zetts and Ueda fail to

utilize the centrally networked storage device for centrally storing data and retrieving the data stored on centrally networked storage, as claimed.

Maya, though, teaches a method for creating backup storage contents from an on-line storage unit and a back-up storage unit (Abstract). In particular, Maya teaches of a centrally networked storage device (Fig. 1, on-line storage unit 10) for centrally storing data (storage caches control functions/data of processors; col. 3, lines 45-50). The system can then retrieve the data stored on the centrally networked storage (Fig. 1, on-line storage unit 10). By utilizing a network storage device, a system can safely duplicate data and quickly recover by assuring a reception of commands and data by transferring the commands and data from the network storage device (col. 1, lines 6-15).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined systems of Zetts and Ueda with utilizing the centrally networked storage device for centrally storing data and retrieving the data stored on centrally networked storage, as taught by Maya, for the advantage of allowing a system to quickly recover by assuring a reception of commands and data by transferring the commands and data from the network storage device.

In regard to Claim 19, the combined systems of Zetts, Ueda and Maya disclose the claimed subject matter. Zetts discloses an apparatus further comprising a plurality of storage devices (video archive unit 140 contains disk

160 and tape 170 as seen in Fig. 1), coupled to said primary head-end controller and said at least one secondary head-end controller (coupled as seen in Fig. 1), as claimed. However, Zetts and Ueda fail to utilize the plurality of storage devices for locally storing data, as claimed.

However, Maya teaches a plurality of storage devices (Fig. 1, on-line storage unit 10, disk 4, and back-up storage unit 11) for locally storing data (storage caches control functions/data of processors; col. 3, lines 45-50). By utilizing a network storage device, a system can safely duplicate data and quickly recover by assuring a reception of commands and data by transferring the commands and data from the network storage device (col. 1, lines 6-15).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined systems of Zetts and Ueda with utilizing the plurality of storage devices for locally storing data, as taught by Maya, for the advantage of allowing a system to quickly recover by assuring a reception of commands and data by transferring the commands and data from the network storage device.

In regard to Claim 20, the combined systems of Zetts, Ueda and Maya disclose the claimed subject matter. In particular, Zetts discloses an apparatus wherein said session-state data (playlist 110) is replicated (playlist 110 has two separate copies 200,210) from one of said plurality of local storage devices (an inherent storage/memory in (computer) 100, such as temporary memory)

coupled to said primary head-end controller (as seen in Fig. 1), and stored on the remaining plurality of local storage devices of said at least one secondary head-end controller (a separate inherent storage/memory in (computer) 100, such as permanent memory), as claimed.

In regard to Claim 21, the combined systems of Zetts, Ueda and Maya disclose the claimed subject matter. In particular, Zetts discloses an apparatus wherein in a failure mode of operation (failure mode; col. 4, lines 33-42), said at least one secondary head-end controller (100 in conjunction with 150) retrieves said replicated session-state data (100 in conjunction with 150 now retrieves and executes from second playlist 210 from inherent memory/storage device in (computer) 100; col. 5, lines 8-13), for continued interaction with said stream server to provide said video information to said network (if primary 130 is in failure mode, then secondary 150 goes from state of standby to live on network 198, both controlled by 100 with appropriate playlist; col. 4, lines 33-45), as claimed.

Conclusion

6. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually

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Certificate of Mailing

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Signature: _____

Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tim Murphy whose telephone number is (703) 305-

8144. The examiner can normally be reached on Monday through Thursday 8am – 5pm, and alternating Fridays 8am – 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the senior examiner, Chris Grant can be reached on (703) 305-4755. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-5359.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Timothy M. Murphy
Patent Examiner
Art Unit 2611

tmm



CHRIS GRANT
PRIMARY EXAMINER